

UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

IN RE COMMVault SYSTEMS, INC.
SECURITIES LITIGATION

Master File No. 14-05628 (PGS) (LHG)

ELECTRONIC DISCOVERY
STIPULATION AND ORDER

Lead Plaintiff Arkansas Teacher Retirement System (“Lead Plaintiff”) and Defendants Commvault Systems, Inc. (“Commvault”), Brian Carolan, and N. Robert Hammer (collectively, “Defendants” and, together with Lead Plaintiff, the “Parties”), through their counsel, have stipulated and agreed to give effect to this Stipulation Establishing Electronic Discovery Protocol (“Protocol”) as set forth below to facilitate discovery.

1. As used herein, the term “Party” or “Parties” means Lead Plaintiff or Defendants or both of them, and the term “Third Party” means any person or entity that is served with a subpoena pursuant to Rule 45 of the Federal Rules of Civil Procedure.

2. The Parties will comply with this Protocol in producing any electronically stored information (“ESI”) or other documents (collectively “Discovery Material”) in this litigation.

3. By agreeing to this Protocol, the Parties do not admit that any Discovery Material produced under its terms is relevant or admissible in this litigation or in any other litigation.

4. The Parties will make reasonable efforts to ensure that all ESI and other material they produce is legible to the same extent as it is maintained in the ordinary course of business.

5. The terms of this Protocol shall apply to all Discovery Material disclosed during the course of the litigation pending before the Court, including Discovery Material disclosed prior or subsequent to the entry of this Protocol.

6. “Native File(s)” means ESI in the electronic format of the application in which such ESI is created, viewed, and/or modified in the ordinary course of business. Native Files are a subset of ESI.

7. “Metadata” means: (i) information embedded in a Native File that is not ordinarily viewable or printable from the application that generated, edited, or modified such Native File; and (ii) information generated automatically by the operation of a computer or other information technology system when a Native File is created, modified, transmitted, deleted, or otherwise manipulated by a user of such system. Metadata is a subset of ESI.

8. “Static Image(s)” means a representation of ESI produced by converting a Native File into a standard image format capable of being viewed and printed on standard computer systems.

9. An image load/unitization file in a standard .opt or .log litigation support image load format shall be included that provides: (i) the document number for each image; (ii) the full path name(s) of each TIFF that represents an image; and (iii) the document boundaries for each document. The load file also shall be in the order that appropriately corresponds with each image file. The following represents the format of a standard .opt or .log image load/unitization file: Bates, Volume, Path_to_image, Document Break, Folder Break, Box Break, Total_Pages.

10. Absent a showing of good cause, no party need restore any form of media upon which backup data is maintained in a party’s normal or allowed processes, including but not limited to backup tapes, disks, SAN, and other forms of media, to comply with its discovery obligations.

11. **Production of Hard-Copy Documents.** The Parties agree to produce hard-copy documents in single-page TIFF image format named according to Bates number accompanied by

document-level optical character recognition (“OCR”) text files. The Parties also agree to provide load files linking the TIFFs with their associated text. The database load file should contain the following fields: “BEGBATES,” “ENDBATES,” “PAGE COUNT,” “VOLUME,” and “CUSTODIAN.” The documents should be logically unitized (i.e., contain correct document breaks: for instance, a five-page document consisting of a cover page and a four-page report should be unitized as a five-page document).

a. The parties will scan hard-copy documents such that the images appear the same as the documents that are kept in the ordinary course of business. Reducing image size may be necessary to fit page size or display production numbers and confidentiality designations without obscuring text.

b. If a folder with hard copy documents is produced, the label of that folder should be scanned and produced along with the documents in the folder. The foldering relationship among the documents in the folder should be produced, either by use of a parent-child relationship or otherwise.

c. Hard copy documents containing color need not be produced in color in the first instance. However, if good cause exists for the receiving party to request production of specific documents in color, the receiving party may request production of such documents in color by providing (i) a list of the Bates numbers of documents it requests to be produced in color format; and (ii) an explanation of the need for production in color format. The producing party shall not unreasonably deny such requests, but need not make such production until the parties reach agreement regarding the additional costs associated with the production of documents in color.

d. If any original hard-copy document has notes affixed thereto or attachments, the Parties will scan and produce copies of the notes or attachments in the same manner as other documents.

12. **Production of ESI.** For the production of ESI, the Parties agree to produce ESI in single-page Group IV TIFF image format using at least 300 DPI print setting, with the exception of items listed in Paragraph 12(a) below. Each image shall have a unique file name, which is the Bates number of the document. Original documentation shall be maintained (i.e., portrait to portrait and landscape to landscape). TIFFs will show any and all text and images which would be visible to the reader using the native software that created the document. Additionally, the Parties agree to deliver extracted text corresponding to each imaged document as individual text files named for the Bates number of the document. The path to the text files will be referenced in the Full Text field in the .dat file. An .opt image cross reference file will also be provided for all TIFF images.

a. Exceptions:

1. Microsoft Access files, Excel files, spreadsheet files, .CSV files, source code, audio, video, and other similar databases shall be produced in native format with a placeholder TIFF image in accordance with the production format set forth above. Each native file should be named according to the Bates number it has been assigned, and should be linked directly to its corresponding record in the load file using the NATIVE FILE PATH field. The exception will be for redacted Excel files which will be produced in TIFF format as specified in Paragraph 12. Images for the redacted Excel files will

display the content in the same manner as if such files were printed. The extractable metadata and text shall be produced in the same manner as other documents that originated in electronic form. To the extent that either Party believes that native files should be produced for a specific document or class of documents not required to be produced in native format pursuant to this Paragraph, the Parties agree to meet and confer on the issue in good faith.

2. *Image Not Readable.* Where TIFF images of certain documents are not readable, or do not represent the files as maintained in the ordinary course, the Parties will produce such documents in native format or in hard copy. To the extent the receiving party obtains through discovery a file or document that the receiving party believes is not adequately represented in TIFF image format, the receiving party may request that file or document be produced in native format, the production of which shall not be unreasonably withheld.
3. *Non-Convertible Files.* Certain types of files such as video and sound files are not amenable to conversion into TIFF format. Such files will not be converted into TIFF format but will be represented in the form of a placeholder TIFF image. These files will be provided in native format with the source file path provided, or in a reasonably usable form by agreement of the Parties. For example, if the native format is not playable using Windows Media Player, then the file may be

produced in an alternate format (for example, recorded telephone calls may be produced in a .wav format).

b. In the event that ESI is produced in a format that is not reasonably usable by the requesting party, the receiving party may request that the producing party produce such ESI in a different format, the production of which shall not be unreasonably withheld.

c. For any document that is redacted, the producing party may withhold any metadata that is the subject of the redaction, and provide OCR text for the produced image as redacted.

d. The Parties agree that all ESI shall be produced with the metadata in the table below and in the manner set forth in this Paragraph, to the extent reasonably available for a particular document. Database information shall be provided in a “.dat” file extension, which contains the metadata fields provided below as a delimited database load file. For the Relativity.dat, the Parties should use Relativity standard delimiters (ASCII 020 corresponding to a comma, ASCII 254 corresponding to a double quote, ASCII 174 corresponding to a new line, and a semicolon used to separate multiple values within a single field). The fielded data should include all the below metadata fields for a file in addition to the unitization (including the production number of the first and last page of each document), and attachments (including information sufficient to identify the parent and child relationships of all documents and ESI that are or have attachments). The first line of the data load file should contain the field headers indicating the contents of each field, and each subsequent line should contain the fielded data for each document. The Parties are not obligated to populate manually any of the following fields with the exception of the CUSTODIAN and VOLUME fields, which must be populated by the producing party.

Production Metadata Fields	Field Description
BegBates	Beginning Bates number
EndBates	Ending Bates number
BegAttach	Beginning Bates number of the last document in an attachment range
EndAttach	Ending Bates number of the last document in an attachment range
Custodian	Name of the custodian the file was sourced from
DuplicateCustodian	Name(s) of any custodian of any deduplicated version(s) of the document
FileName	File name of the original file name
SourceFilePath	Path and file name in the ordinary course of business
FileSize	Size of the file in bytes
DocExt	Native File extension
EmailSubject	Subject line extracted from an email message
Title	Title field extracted from the metadata of a non-email document
Author	Author field extracted from the metadata of a non-email document
From	From field extracted from an email message
To	To field extracted from an email message
CC	CC field extracted from an email message
BCC	BCC field extracted from an email message
DateRcvd	Received date of an email message
TimeRcvd	Received time of an email message
DateSent	Sent date of an email message
TimeSent	Sent time of an email message
DateCreated	Date that a file was created
TimeCreated	Time that a file was created
DateLastMod	Date that a file was last modified
TimeLastMod	Time that a file was last modified
SHA-1 or MD5	SHA-1 or MD5 value for the document
FileDescription	File type of the document
Native File Path	Path to native file as produced
Page Count	Number of TIFF pages produced
Volume	The name of the CD, DVD, or hard drive
Full Text	Path to the full extracted text of the document

e. To reduce the unnecessary costs of reviewing and producing exact duplicate documents, each Party will remove duplicate ESI prior to producing documents. Global de-duplication is executed at the document family level. Stand-alone files will de-

duplicate against other stand-alone files, but not against attachments contained in document families. Deduplication shall be done on exact duplicate documents based on MD5 or SHA-1 hash values at the document level. Each Party shall make reasonable efforts to remove exact duplicate ESI across custodians and to produce searchable metadata in a “Duplicate Custodian” field for each produced document sufficient for the receiving party to identify all custodians of the produced document. If such a process is not possible, each Party will conduct deduplication only within a source (e.g., within a custodian). The producing party will disclose which method of deduplication has been utilized. If during the course of its review, the producing party identifies a large number of duplicate documents, the Parties can confer regarding a custom deduplication protocol. No custom deduplication method will be implemented without the consent of the receiving party, and such consent shall not be unreasonably withheld.

13. For all forms of production, parent-child relationships (i.e., the association between an attachment and its parent document) should be preserved. For example, if a Party produces a printout of an email with its attachments, such attachments should be produced behind the email in the order in which they were attached and identified as child documents to the parent email. If a Party withholds as privileged any document or portion of a document, any parent-child relationship must be similarly maintained. For example, if a Party withholds an attachment to an email as privileged, the email will be produced with a child file stating that an attachment has been withheld, and stating the grounds for the withholding. Similarly, if a Party withholds an email as privileged while producing the attachment, the parent-child relationship will be similarly maintained and the grounds for withholding of the email will be similarly stated.

14. Each Bates number will: (i) be unique across the entire document production; (ii) maintain a constant length across the entire production (i.e., ABC00000001—with no space between the prefix and the number, padded to the same number of characters); (iii) contain no special characters; and (iv) be sequential within a given document. If a Bates number or set of Bates numbers is skipped in a production, the producing party will so note in a cover letter or production log accompanying the production.

15. A Party that issues a Third Party subpoena (“Issuing Party”) shall include a copy of this Protocol with the subpoena and request that the Third Party produce documents in accordance with the specification set forth herein. If a Party issued a Third Party subpoena prior to the execution of this Protocol, that Party shall promptly forward a copy of this Protocol to the Third Party and request that the nonparty produce documents in accordance with the specifications set forth herein. The Issuing Party is responsible for producing any documents obtained pursuant to a subpoena to all other parties. No Party shall be required to reformat or re-Bates stamp any documents are data produced by a Third Party in this litigation. In the event that a Third Party produces documents without Bates numbers, then the Party who sought discovery from the Third Party shall produce the reproduction or production with a unique Bates number in accordance with Paragraph 14 above. Nothing in this Protocol is intended or should be interpreted as narrowing, expanding, or otherwise affecting the rights of the Parties or Third Party to object to a subpoena.

16. If there is a conflict between the provisions of this Protocol and the Stipulation and Confidentiality Order (the “Confidentiality Order”), the Confidentiality Order shall control.

17. Nothing in this Protocol shall be interpreted to require the disclosure of any Discovery Material that a Party contends are protected from disclosure by the attorney-client

privilege, work-product doctrine, or any other applicable privilege or protection, nor shall this Protocol require the production of ESI or other documents that are not discoverable under applicable law.

18. Moreover, nothing in this Protocol shall waive or limit any protections afforded the Parties under Federal Rule of Evidence 502(d).

19. Nothing in this Protocol shall preclude the Parties from meeting and conferring regarding applicable search terms, date ranges, custodians, and other parameters or methods to be used to cull data for review and production.

20. The Parties shall make their best efforts to comply with and resolve any differences concerning compliance with this Protocol.

Dated: December 1, 2016

/s/ James E. Cecchi

/s/ Joshua N. Howley

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SO ORDERED:



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